

Tuberculosis overview

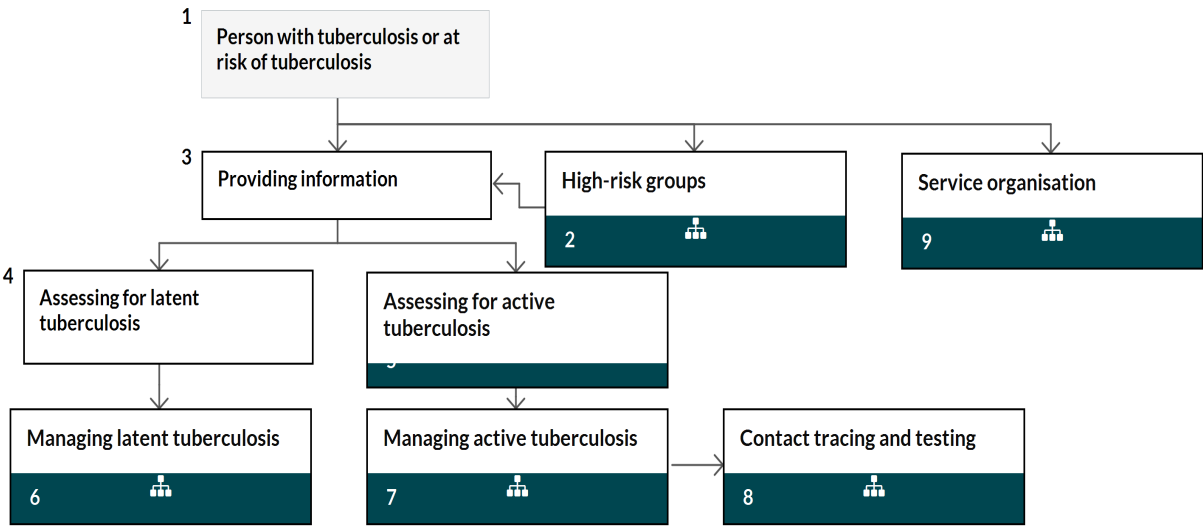
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/tuberculosis>

NICE Pathway last updated: 12 September 2019

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Person with tuberculosis or at risk of tuberculosis

No additional information

2 High-risk groups

[See Tuberculosis / Tuberculosis in high-risk groups](#)

3 Providing information

National organisations (for example, National Knowledge Service – Tuberculosis, TB Alert, Public Health England, Department of Health and NHS Choices) should work together to develop generic, quality-assured template materials with consistent up-to-date messages. These materials should be made freely available and designed so that they can be adapted to local needs.

[Multidisciplinary TB teams](#) [See page 6] should use these templates for general awareness raising and targeted activities in [under-served groups](#) [See page 8] and other [high-risk groups](#) [See page 7]. Involve the target group in developing and piloting the materials.

The content of any materials should:

- be up-to-date and attractively designed, including pictures and colour if possible
- be culturally appropriate, taking into account the language, actions, customs, beliefs and values of the group they are aimed at
- be tailored to the target population's needs
- include risks and benefits of treatment, and how to access services, advice and support
- dispel myths
- show that, by deciding to be tested and treated for TB, a person can be empowered to take responsibility for their own health
- use language that encourages the person to believe that they can change their behaviour (see what NICE says on [behaviour change](#))
- be simple and succinct.

Make the material available in a range of formats such as written, braille, text messages, electronic, audio (including podcasts), pictorial and video. Make them freely available in a variety of ways, for example, online, as print materials or on memory sticks.

Disseminate materials in ways likely to reach target groups, for example, via culturally specific radio or TV stations, at shelters, and at community, commercial or religious venues that target groups attend regularly.

Multidisciplinary TB teams and others working with at-risk groups should use high quality material to raise awareness of TB.

Multidisciplinary TB teams and others working with the general public, and with under-served and other high-risk groups in particular, should include information on TB with other health-related messages and existing health promotion programmes tailored to the target group.

Multidisciplinary TB teams should work in partnership with voluntary organisations and 'community champions' to increase awareness of TB, in particular among under-served groups at risk of infection but also in the general population. If possible, peers [See page 8] who have experience of TB should contribute to awareness-raising activities and support people in treatment.

See what NICE says on community engagement.

4 Assessing for latent tuberculosis

See tuberculosis in high-risk groups for details of testing for latent tuberculosis in high-risk groups [See page 7].

See contact tracing and testing for details of testing for latent tuberculosis in close contacts [See page 6] of people diagnosed with active tuberculosis. This includes specific guidance for testing in neonates, infants (over 4 weeks and under 2 years), children and young people.

For guidance on cases in schools see assess need for contact tracing.

For guidance on incident and outbreak situations see contact tracing and testing.

5 Assessing for active tuberculosis

See Tuberculosis / Assessing for active tuberculosis

6 Managing latent tuberculosis

[See Tuberculosis / Managing latent tuberculosis](#)

7 Managing active tuberculosis

[See Tuberculosis / Managing active tuberculosis](#)

8 Contact tracing and testing

[See Tuberculosis / Tuberculosis: contact tracing and testing](#)

9 Service organisation

[See Tuberculosis / Tuberculosis: service organisation](#)

Involves follow up of a person suspected or confirmed to have TB. It needs a collaborative, multidisciplinary approach and should start as soon as possible after a suspected case is discovered.

Standard and enhanced case management is overseen by a case manager who will usually be a specialist TB nurse or (in low-incidence areas) a nurse with responsibilities that include TB. Depending on the person's circumstances and needs, case management can also be provided by appropriately trained and supported non-clinical members of the TB multidisciplinary team.

Methods of helping someone to overcome barriers to completing diagnostic investigations and TB treatment. Examples of barriers include

- transport
- housing
- nutrition
- immigration status.

A team of professionals with a mix of skills to meet the needs of someone with TB who also has complex physical and psychosocial issues (that is, someone who is under-served). Team members will include:

- a social worker
- voluntary sector and local housing representatives
- TB lead physician and nurse
- a case manager
- a pharmacist
- an infectious disease doctor/consultant in communicable disease control or health protection
- a peer supporter or advocate
- a psychiatrist.

Close contacts are people who have had prolonged, frequent or intense contact with a person with infectious TB. For example, these could include household contacts – those who share a bedroom, kitchen, bathroom or sitting room with the index case. Close contacts may also include boyfriends or girlfriends and frequent visitors to the home of the index case. Depending in the circumstances, occasionally co-workers are classed as close contacts although they are more usually classed as social contacts.

Used in this interactive flowchart to mean adults, young people and children from any ethnic background, regardless of migration status who are at increased risk of having or contracting TB. This includes:

- people classified as under-served
- people identified as contacts according to the case finding recommendations
- new entrants from high-incidence countries
- people who are immunocompromised.

Close contacts are people who have had prolonged, frequent or intense contact with a person with infectious TB. For example, these could include household contacts – those who share a bedroom, kitchen, bathroom or sitting room with the index case. Close contacts may also include boyfriends or girlfriends and frequent visitors to the home of the index case. Depending in the circumstances, occasionally co-workers are classed as close contacts although they are more usually classed as social contacts.

A **new entrant** is anyone coming to work or settle in the UK. This includes immigrants, refugees, asylum seekers, students and people on work permits. It also includes UK-born people, or UK citizens, re-entering the country after a prolonged stay in a high-incidence country. A **high-incidence country** or area has more than 40 cases of TB per 100,000 people per year. Public Health England lists high incidence countries and areas of the UK on its website.

In this interactive flowchart, **immunocompromised** refers to a person who has a significantly impaired immune system. For instance, this may be because of prolonged corticosteroid use, tumour necrosis factor-alpha antagonists, antirejection therapy, immunosuppression-causing medication or comorbid states that affect the immune system, for example, HIV, chronic renal disease, many haematological and solid cancers, and diabetes.

A team of professionals with a mix of skills to meet the needs of someone with TB who also has complex physical and psychosocial issues (that is, someone who is under-served). Team members will include:

- a social worker
- voluntary sector and local housing representatives
- TB lead physician and nurse
- a case manager
- a pharmacist

- an infectious disease doctor/consultant in communicable disease control or health protection
- a peer supporter or advocate
- a psychiatrist.

People who may have experienced TB. They are often in a good position to help convey, with empathy, the need for testing or treatment. They may be recruited from specific populations. With support they can communicate health messages, assist with contact investigations or screening and offer people help while they are being tested or treated.

Used in this interactive flowchart to mean groups of adults, young people and children from any ethnic background, regardless of migration status. They are under-served if their social circumstances, language, culture or lifestyle (or those of their parents or carers) make it difficult to:

- recognise the clinical onset of TB
- access diagnostic and treatment services
- self-administer treatment (or, in the case of children and young people, have treatment administered by a parent or carer)
- attend regular appointments for clinical follow-up.

The groups classified as under-served in this interactive flowchart are:

- people who are homeless
- people who misuse substances
- prisoners
- vulnerable migrants.

Groups of children identified as potentially under-served include:

- unaccompanied minors
- children whose parents are under-served, including vulnerable migrants
- children whose parents are in prison or who abuse substances
- children from gypsy and traveller communities
- looked-after children.

For the purposes of TB control, a broad and inclusive definition of **homelessness** has been adopted that incorporates overcrowded and substandard accommodation. It includes people:

- who share an enclosed air space with those at high risk of undetected active pulmonary tuberculosis (that is, those with a history of rough sleeping, hostel residence or substance misuse)
- without the means to securely store prescribed medication; without private space in which to self-administer TB treatment
- without secure accommodation in which to rest and recuperate in safety and dignity for the full duration of planned treatment.

Substance misuse is defined as intoxication by – or regular excessive consumption of and/or dependence on – psychoactive substances, leading to social, psychological, physical or legal problems. It includes problematic use of both legal and illegal drugs.

Prisons include any state prison establishments, including young offender institutions.

Vulnerable migrants may include undocumented migrants and those with no recourse to public funds. Some refugees, asylum seekers and new entrants to the country may also fall into this category.

Active case-finding

(systematically identifying people with active or latent TB using tests, examinations or other procedures)

Adherence

(the person's ability or willingness to keep to a treatment regimen as directed)

BMRC

British Medical Research Council

BNF

British National Formulary

CNS

central nervous system

Congregate settings

(places where people congregate or an institutional setting such as a workplace, prison, hostel, or childcare or educational setting, where social contacts might have had significant exposure to TB)

Contacts

(a person who has spent time with someone with infectious TB)

Disseminated TB

(blood-borne spread of TB that may or may not be accompanied by chest X-ray or high resolution CT changes)

Extensively drug-resistant TB

(resistance to at least isoniazid and rifampicin, 1 injectable agent (capreomycin, kanamycin or amikacin) and 1 fluoroquinolone)

Extrapulmonary TB

(active TB disease in any site other than the lungs or tracheobronchial tree)

FFP

filtering face piece

GCS

Glasgow coma score

IV

intravenous

Latent TB

(infection with mycobacteria of the *M. tuberculosis* complex in which the bacteria are alive but not currently causing active disease (also known as latent TB infection))

Multidrug-resistant TB

(TB resistant to isoniazid and rifampicin, with or without any other resistance)

Neonates

(child aged 4 weeks or under)

Off label

(a medicine with an existing UK marketing authorisation that is used outside the terms of its marketing authorisation, for example, by indication, dose, route or patient population)

Outbreak

(there is no robust, widely accepted threshold for an outbreak of a disease, but in practical terms an outbreak is the occurrence of an unusually high number of cases in associated people, in a small geographical area, or in a relatively short period of time)

Prisons

(any state prison establishments, including young offender institutions)

Prison

(any state prison establishment, including a young offender institution)

Rapid access

(in the context of TB services, timely support from a specialist team)

Social contacts

(someone who has had contact with a person with infectious TB but has not been in prolonged, frequent or intense contact)

Treatment interruption

(a break in the prescribed anti-TB regimen for 2 weeks or more in the initial phase, or more than 20% of prescribed doses missed intermittently)

Sources

Tuberculosis (2016 updated 2019) NICE guideline NG33

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and

their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.